



Calhoun: The NPS Institutional Archive
DSpace Repository

Theses and Dissertations

1. Thesis and Dissertation Collection, all items

1996-12

Implementing the Shock Trauma Platoon in
the reorganization of the Marine Corps
Medical Battalions: resource and tactical implications

Fuhrer, Thomas J.

Monterey, California. Naval Postgraduate School

<http://hdl.handle.net/10945/31978>

Downloaded from NPS Archive: Calhoun



Calhoun is the Naval Postgraduate School's public access digital repository for research materials and institutional publications created by the NPS community. Calhoun is named for Professor of Mathematics Guy K. Calhoun, NPS's first appointed -- and published -- scholarly author.

Dudley Knox Library / Naval Postgraduate School
411 Dyer Road / 1 University Circle
Monterey, California USA 93943

<http://www.nps.edu/library>

NAVAL POSTGRADUATE SCHOOL

Monterey, California



THESIS

**IMPLEMENTING THE SHOCK TRAUMA
PLATOON IN THE REORGANIZATION OF
THE MARINE CORPS MEDICAL
BATTALIONS: RESOURCE AND TACTICAL
IMPLICATIONS**

by

Thomas J. Fuhrer

December, 1996

Thesis Advisor:

Richard B. Doyle

Approved for public release; distribution is unlimited.

[DTIC QUALITY INSPECTED 3]

19970516 081

REPORT DOCUMENTATION PAGE			Form Approved OMB No. 0704-0188	
Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instruction, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188) Washington DC 20503.				
1. AGENCY USE ONLY (Leave blank)		2. REPORT DATE December 1996		3. REPORT TYPE AND DATES COVERED Master's Thesis
4. TITLE AND SUBTITLE Implementing the Shock Trauma Platoon in the Reorganization of the Marine Corps Medical Battalions: Resource and Tactical Implications			5. FUNDING NUMBERS	
6. AUTHOR(S) Thomas J. Fuhrer				
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Naval Postgraduate School Monterey CA 93943-5000			8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)			10. SPONSORING/MONITORING AGENCY REPORT NUMBER	
11. SUPPLEMENTARY NOTES The views expressed in this thesis are those of the author and do not reflect the official policy or position of the Department of Defense or the U.S. Government.				
12a. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution is unlimited.			12b. DISTRIBUTION CODE	
13. ABSTRACT (maximum 200 words) The United States Marine Corps is extremely dependent upon mobility for success. Evidence from Desert Shield/Desert Storm indicated that the structure of the Marine Corps Medical Battalions impeded this mobility. The Marine Corps reorganized the First and Second Medical Battalions within the Fleet Marine Force in 1995 to address this problem. This thesis provides an overview of the restructuring initiative. It indicates how Shock Trauma Platoons fit into the scheme of operating a mobile Health Service Support Element and provides insight into how the reorganization affects the Navy Health Care Continuum. Data was obtained from a review of documents obtained from Headquarters Marine Corps, Marine Corps Combat Development Command, Fleet Marine Force Manuals, and interviews with officials involved in the restructuring. The thesis concludes that the Medical Battalions have become more mobile and are likely to be able to provide the required mobile Health Service Support. It was also concluded that the Marine Corps will experience a monetary savings from the reorganization.				
14. SUBJECT TERMS Shock Trauma Platoon, Marine Corps Medical Battalion			15. NUMBER OF PAGES 78	
			16. PRICE CODE	
17. SECURITY CLASSIFICATION OF REPORT Unclassified	18. SECURITY CLASSIFICATION OF THIS PAGE Unclassified	19. SECURITY CLASSIFICATION OF ABSTRACT Unclassified	20. LIMITATION OF ABSTRACT UL	

NSN 7540-01-280-5500

Standard Form 298 (Rev. 2-89)
Prescribed by ANSI Std. Z39-18 298-102

Approved for public release; distribution is unlimited.

**IMPLEMENTING THE SHOCK TRAUMA PLATOON IN THE
REORGANIZATION OF THE MARINE CORPS MEDICAL
BATTALIONS: RESOURCE AND TACTICAL IMPLICATIONS**

Thomas J. Fuhrer
Major, United States Marine Corps
B.S., Clarion University of Pennsylvania, 1984

Submitted in partial fulfillment
of the requirements for the degree of

MASTER OF SCIENCE IN MANAGEMENT

from the

NAVAL POSTGRADUATE SCHOOL

December 1996

Author:

Thomas J. Fuhrer

Approved by:

Richard B. Doyle, Principal Thesis Advisor

John E. Mutty, Associate Thesis Advisor

Reuben Harris, Chairman
Department of Systems Management

ABSTRACT

The United States Marine Corps is extremely dependent upon mobility for success. Evidence from Desert Shield/Desert Storm indicated that the structure of the Marine Corps Medical Battalions impeded this mobility. The Marine Corps reorganized the First and Second Medical Battalions within the Fleet Marine Force in 1995 to address this problem. This thesis provides an overview of the restructuring initiative. It indicates how Shock Trauma Platoons fit into the scheme of operating a mobile Health Service Support Element and provides insight into how the reorganization affects the Navy Health Care Continuum. Data was obtained from a review of documents obtained from Headquarters Marine Corps, Marine Corps Combat Development Command, Fleet Marine Force Manuals, and interviews with officials involved in the restructuring. The thesis concludes that the Medical Battalions have become more mobile and are likely to be able to provide the required mobile Health Service Support. It was also concluded that the Marine Corps will experience a monetary savings from the reorganization.

TABLE OF CONTENTS

I.	INTRODUCTION	1
A.	GENERAL	1
B.	OBJECTIVES OF THE RESEARCH	3
C.	SCOPE	4
D.	METHODOLOGY	5
E.	ORGANIZATION OF THESIS	5
II.	NAVY MEDICAL SUPPORT FOR THE MARINE CORPS	7
A.	MISSION	7
B.	FUNCTIONS OF HEALTH SERVICE SUPPORT	8
1.	Health Maintenance	8
2.	Casualty Collection	8
3.	Casualty Treatment	8
4.	Temporary Hospitalization	9
5.	Casualty Evacuation	9
C.	ORGANIZATION	9
D.	MEDICAL PLATOONS	12
E.	BATTALION AID STATION (BAS)	14
F.	MEDICAL BATTALION	15
III.	REASONS FOR THE REORGANIZATION	21
A.	PRINCIPLES OF HEALTH SERVICE SUPPORT	21
B.	NEW NATIONAL SECURITY ENVIRONMENT	22

C.	BACKGROUND	24
D.	HEALTH SERVICE SUPPORT (HSS) CHANGES	27
E.	NEW MEDICAL BATTALION ORGANIZATION	28
IV.	POSSIBLE IMPACT OF REORGANIZATION ON HEALTH SERVICES	39
A.	NEW THREATS	39
B.	MOBILITY REQUIREMENTS AND CHANGES	39
C.	FIRST MEDICAL BATTALION'S SHOCK TRAUMA PLATOON (STP) EXPERIENCES	41
D.	SECOND MEDICAL BATTALION'S STP EXPERIENCES	42
E.	ADDITIONAL STP EXPERIENCES	44
F.	STP LIMITATIONS	45
G.	HEALTH SERVICES IN ECHELON II CARE	46
V.	FINANCIAL IMPLICATIONS OF THE REORGANIZATION	49
A.	INTRODUCTION	49
B.	SECOND MEDICAL BATTALION'S BUDGET	49
C.	MANPOWER SAVINGS	51
D.	CLASS VIII MEDICAL MATERIAL	52
E.	MARITIME PREPOSITIONING FORCE	53
F.	CONCLUSION	55
VI.	SUMMARY AND CONCLUSIONS	57

A.	SUMMARY	57
B.	CONCLUSIONS	59
C.	RECOMMENDATIONS FOR FURTHER RESEARCH	60

APPENDIX A.	LIST OF SYMBOLS, ACRONYMS AND/OR ABBREVIATIONS	61
-------------	--	----

APPENDIX B.	MEDICAL BATTALION MANNING	63
-------------	-------------------------------------	----

LIST OF REFERENCES	65
------------------------------	----

INITIAL DISTRIBUTION LIST	67
-------------------------------------	----

I. INTRODUCTION

A. GENERAL

The Department of Defense has had a huge reduction of resources since the end of the Cold War. At the same time, military requirements have increased instead of decreasing as many would have expected as part of the so called peace dividend that the United States would receive with the breakup of the former Soviet Union. The main adversary of the United States would no longer exist in the capacity that had survived fifty years. In the absence of another superpower as a leading adversary, the United States Congress was pressured and felt the need to reduce the military budget that had grown tremendously with the advent of the Cold War.

The medical service field is not a field organic to the Military Occupational Specialties that the United States Marine Corps maintains. Therefore, Marines are not in the medical field. The Marine Corps relies on the Navy for all medical support, which is an essential logistical element for all Navy, Marine Corps and joint operations. The Navy maintains fifteen fleet hospitals and two hospital ships to meet the ever changing and multitude of requirements, whether contingency or humanitarian, that are prevalent in the world today [Ref. 1].

The United States Marine Corps is operating in a time of limited resources and expanding requirements. Success in today's environment, an environment ridden with regional turmoil, is extremely dependent upon the mobility of today's forces. Resources and personnel must be allocated in the most efficient manner to obtain optimum return on each dollar spent. In addition, health service support provided to the Fleet Marine Force must be compatible with the mobility of today's Force.

The Medical Battalions of the First and Second Force Service Support Groups were reorganized in November 1995, and plans are currently underway to restructure the Third and Fourth Force Service Support Groups in a similar fashion. Before the reorganization, the structure of each Medical Battalion in the Marine Corps consisted of a Headquarters and Service Company, two Surgical Support Companies, and four Collecting and Clearing Companies. The reorganization of the Medical Battalions in the Marine Corps and the introduction of the Shock Trauma Platoons into those battalions may be the answer to achieving the goals of receiving the optimum return on each dollar spent and maintaining a mobile force in Combat Service Support, specifically medical support, that the Navy provides to the Fleet Marine Force.

This thesis will investigate the current structure of Marine Corps Medical Battalions, provide a comprehensive overview of why and how the restructuring occurred, show how the Shock Trauma Platoons fit into the scheme of operating under current limited budgets, indicate the resource or tactical impact of this change, and provide insight into how the reorganization fits into the Navy Health Care Continuum.

This thesis will concentrate on the reorganization of the Medical Battalions of the Force Service Support Groups in the Marine Corps, with the thrust on what the reorganization has accomplished for the Marine Corps, and how the reorganization has affected overall Health Service support for the Marine Corps.

B. OBJECTIVES OF THE RESEARCH

The main objective of this thesis is to answer the primary research question "What impact has the reorganization of Medical Battalions and the introduction of the Shock Trauma Platoons had on the medical support provided to the Fleet Marine Force?

Secondarily, the thesis will answer the following subsidiary questions:

- Why is the Battalion structured in the current form?
- Where did the reorganization originate?

- What are the implications of this change for Fleet Marine Force tactics and doctrine?
- What are the implications of this change for resources?
- How has the reorganization affected the staffing of personnel assigned to Marine Corps Medical Battalions?
- How does the reorganization fit into the Health Care Continuum?
- Has the mobility of Echelon II medical care increased with the introduction of the Shock Trauma Platoon?
- What benefits will the Marine Corps receive from the reorganization?
- What is the ultimate goal of the reorganization?

C. SCOPE

The thesis will encompass historical background of what Navy Medicine does for the Fleet Marine Force, as well as provide information on how Navy medicine accomplishes its support mission. The thesis will provide information concerning what brought about the changes in the structure of Medical Battalions, as well as how these changes are currently being implemented.

The previous structure and the new structure will be examined in an attempt to identify budgetary savings that may have occurred as a result of the reorganization. In addition, the former and previous structures will be analyzed in an effort to observe the change in mobility of health service

support. This thesis will be a comprehensive look at the implementation of Shock Trauma Platoons and the implications of this change.

D. METHODOLOGY

This thesis examines the implementation of the Shock Trauma Platoon to the Medical Battalions of the Marine Corps. Data and background material were collected from a literature review utilizing Headquarters Marine Corps, Marine Corps Combat Development Command, Fleet Marine Force Manuals, as well as interviews. Additional information was obtained through a review of current military periodicals, journals and the internet.

Utilizing the above sources, this thesis identifies the reasons for the reorganization as well as the benefits that the reorganization has provided the Fleet Marine Force.

E. ORGANIZATION OF THESIS

The first chapter of this thesis provides an introduction to the topic. The remaining chapters will strive to answer the primary research question as well as the subsidiary research questions.

Chapter II of this thesis contains background information on Navy Medical Support provided to the Marine Corps. The mission and organization of the Marine Corps Medical Battalion, as well as the different levels or echelons of

medical care within the Navy Health Care Continuum, are also identified and discussed in this chapter.

Chapter III provides the reasons for the reorganization of the Medical Battalions. An in depth explanation of the process used by the Marine Corps to develop the Shock Trauma Platoons in the Medical Battalion reorganization is also provided in this chapter.

Chapter IV provides the possible impact of the reorganization on health services. The mobility and effectiveness of health service support in the world's ever changing expeditionary requirements is also discussed in this chapter.

Chapter V provides the financial implications of the reorganization. This chapter provides a look at the budget of a Medical Battalion before the reorganization took place and the budget of the same battalion after the reorganization took place. The origin of any possible savings is analyzed also.

Finally, Chapter VI contains the summary and conclusions of the thesis.

II. NAVY MEDICAL SUPPORT FOR THE MARINE CORPS

A. MISSION

The mission of Health Service or Medical Support is to provide prompt and effective health care to combat forces in the time of conflict and to deliver cost effective health services in peacetime. [Ref. 1]

Combat Service Support (CSS) is the logistical support that the Force Service Support Group (FSSG) provides to all elements of a Marine Air-Ground Task Force (MAGTF) when support outside the organic capabilities of an element is required. This logistical support includes supply, maintenance, general engineering, health services, landing support, transportation, and other service support functions [Ref. 2]. Health Service Support (HSS) is a key element of Combat Service Support, as it enables the force to remain healthy and ready for combat or any other contingency operation that may arise.

Three active FSSG's and one reserve FSSG exist to support the three active Marine Expeditionary Forces (MEF's) and the reserve forces throughout the Marine Corps. As an essential element of all Navy-Marine Corps operations, medical personnel and medical support deploy wherever the Fleet Marine Forces

deploy. The Medical Battalion of the FSSG provides direct and general support to the MEF.

B. FUNCTIONS OF HEALTH SERVICE SUPPORT

Health maintenance, casualty collection, casualty treatment, temporary hospitalization, and casualty evacuation are the five functions of Health Service Support. A brief description of each of these functions follows. [Ref. 2]

1. Health Maintenance

Duties and tasks required to ensure the medical readiness of any unit and the assigned personnel are the functions of health maintenance. These tasks include providing routine sick call, as well as providing physical examinations, conducting any preventive medicine programs, and maintaining updated medical records. Health maintenance is a key point in ensuring that all members of a command are medically qualified to serve anywhere around the world.

2. Casualty Collection

Each unit must plan and make provisions for manning locations where casualties can be assembled, triaged, treated, and protected from additional injury while they await evacuation to the next echelon of care.

3. Casualty Treatment

Providing the care that is within the capabilities of the unit is the function of casualty treatment. Included in these

tasks are triage, buddy aid, and providing initial resuscitative care.

4. Temporary Hospitalization

Providing medical treatment facilities to house the sick, wounded, and injured for a short time, normally less than seventy-two hours, is the function of temporary hospitalization. Medical Battalions are the only units that can provide temporary hospitalization in the Fleet Marine Force.

5. Casualty Evacuation

Every unit maintains a casualty evacuation capability. Moving the sick, injured, and wounded from the location where the injury or illness occurred to medical treatment facilities is the function of casualty evacuation. A medical vehicle is not required for this -- any vehicle will suffice.

C. ORGANIZATION

Navy Medical personnel deploy with the Fleet Marine Force wherever the mission dictates the Fleet Marine Force to deploy. Approximately thirty percent of the Navy's medical force is usually assigned to deploying units of the Navy and Marine Corps. The other seventy percent of the medical personnel in the Navy are assigned to hospitals and clinics which provide medical care for the Navy and Marine Corps, training, research, and occupational and environmental

medicine. [Ref. 1] The Navy provides health care to the Marine Corps at each of the Marine Corps bases throughout the world. In addition, the Navy provides all medical personnel to the Marine Corps Medical Battalions, which provide support to the Fleet Marine Forces.

A Marine Air-Ground Task Force (MAGTF) consists of a Command Element (CE), a Ground Combat Element (GCE), an Air Combat Element (ACE), and a Combat Service Support Element (CSSE). Health Service Support for each of these elements within a MAGTF of the Marine Corps is provided by the medical professionals of the Navy. The CE, GCE, and the ACE each have HSS personnel assigned to provide organic HSS capabilities. The organic capabilities of each of the elements of the MAGTF consists of echelon I medical care, which is care provided by the unit corpsman or Battalion Aid Station (BAS). Echelon I care consists of first aid, emergency procedures, fluid therapy, and advanced emergency procedures. Echelon I care is extremely mobile, but lacks advanced capabilities. As the level of the echelon increases, the mobility of the medical support decreases, while the capability increases.

HSS capabilities and assets are concentrated in the CSSE of the MAGTF. Treatment or requirements above the elements' organic capabilities are provided by the CSSE through the

Medical Battalion within the FSSG. The Medical Battalion provides care through echelon II in the medical continuum of care. Echelon II care consists of initial resuscitative treatment, surgery, flowthrough beds, and providing blood and blood products. Echelon II support is defined as that care necessary to examine and evaluate the general status of the patient, establish a priority for return to duty or further evacuation, and the provision of emergency care, including initial resuscitative surgery. Echelon II care is to be provided by the Medical Battalion of the FSSG through the employment of mobile, modular, and task organized units that support combat operations in a multitude of environments. [Ref. 3]

Echelon III support is defined as that care necessary to treat the casualty in a medical facility that is staffed and equipped to provide resuscitation, initial wound surgery, and post operative treatment. Echelon III care is available on hospital ships, in combat zone fleet hospitals, and on augmented casualty receiving and treatment ships. [Ref. 3]

Echelon IV care is care that is provided in a general hospital staffed and equipped to provide definitive care. These facilities are located in the communications zones normally located outside the continental United States. These

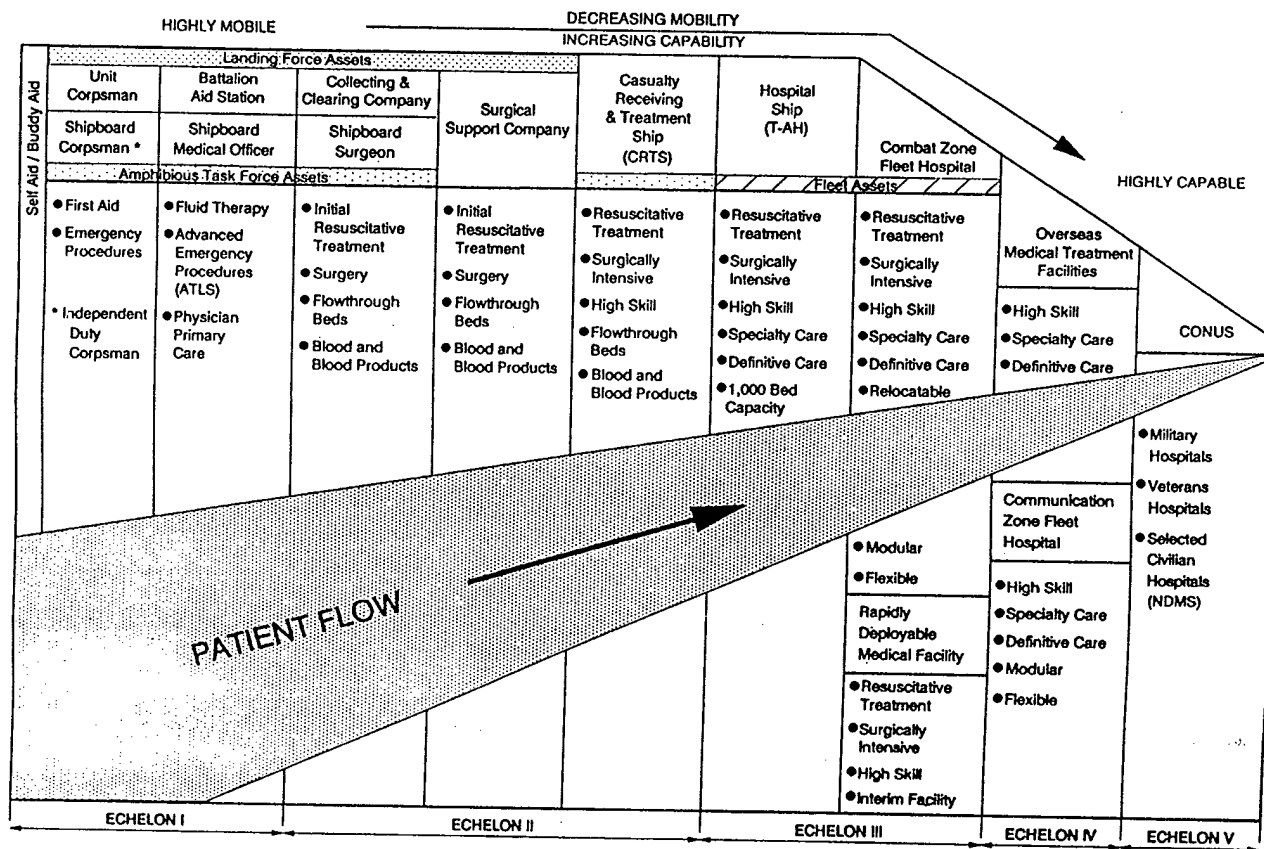
hospitals have the mission of rehabilitating casualties back to duty. [Ref. 4]

Echelon V care is care provided by hospitals within the continental United States. The treatment facilities that provide echelon V care are Military Treatment Facilities of the Department of Defense or hospitals belonging to the Department of Veterans Affairs. Care provided by these hospitals includes convalescent care and restorative care as well as rehabilitative treatment. [Ref. 4] Figure 2.1 shows a breakdown of echelon I through echelon V medical care on the medical care continuum prior to the reorganization of the medical battalion.

D. MEDICAL PLATOONS

The company and platoon corpsmen's job is to perform first aid on casualties or patients, in order to support life, stabilize casualties, and prevent further injuries so the casualties can be evacuated to the proper facilities where the proper care can be received throughout the combat experience. [Ref. 2]

Figure 2.1 Continuum of Health Care From Ref. [1]



Each rifle company and weapons company is usually assigned a team of eleven corpsmen. These corpsmen remain with the same unit throughout their tour with the Fleet Marine Force, at least in the ideal situation. This way they can continuously work closely with their unit and become a part of the team. [Ref. 2] Marines think very highly of the corpsmen assigned to their units, and the continuity of the corpsmen is vital to maintaining the integrity of the unit.

Each battalion, regiment, or squadron of the Marine Corps has Marines assigned as litter bearers. Although they are not actually a part of the medical section, they do fall under the cognizance of the battalion surgeon. Each infantry battalion should have at least twenty four litter bearers assigned.

E. BATTALION AID STATION (BAS)

The BAS provides support and assistance to company and platoon corpsmen, provides advanced level care, and Advanced Trauma Life Support (ATLS) to maintain a ready combat force. The BAS operates as close to the forward edge of the battle area as possible or permitted by the tactical situation at hand. The duties of the BAS include the following:

- Return patients to duty when possible.
- Conduct triage.

- Treat casualties to minimize mortality, prevent further injury, and stabilize for further evacuation.
- Record all casualties received and treated, and prepare casualty reports.
- Provide temporary shelter in conjunction with emergency treatment.
- Transfer evacuees from aid station to ambulance, helicopter, or other evacuation transportation.
- Initiate treatment of combat stress casualties.
- Provide routine sick call for battalion personnel.
- Provide personnel replacement and medical resupply for company medical platoons. [Ref. 4]

Battalion Aid Stations provide support closer to ground combat forces than any other medical unit. The BAS must be very mobile to support the ground combat forces in their highly mobile operations.

F. MEDICAL BATTALION

The Medical Battalion is organized to plan, coordinate, and supervise all medical support functions of the MEF. It is structured to facilitate task organization of the MEF, Marine Expeditionary Unit (MEU), or any other Marine Air-Ground Task Force (MAGTF) that develops in support of contingency operations as they arise. The Medical Battalion provides medical support to the Marine Expeditionary Force, so that the force can maintain ready combat forces.

The Medical Battalion is tasked with ensuring the following support is provided to the MEF, concentrating their medical support effort in assisting the overall combat effort.

- Providing health care through echelon II in the medical care continuum of care. This care includes initial resuscitative care, resuscitative surgery, and temporary hospitalization of casualties.
- Providing medical regulating services to all MAGTF's. These medical regulating services include coordinating the movement of casualties from the injury or illness site through each of the echelons of medical care required until the ultimate facility which is equipped to provide the appropriate level of care is reached.
- Evaluating, recommending, and applying preventive medicine measures for the prevention and control of disease.
- Assisting in the collection, analysis, and dissemination of medical intelligence.
- Providing the medical care at casualty decontamination and treatment stations.
- Providing casualty evacuation support to forward elements, as well as coordinating casualty evacuation to the rear.
- Assisting in identifying remains of personnel and in preparing death certificates in support of graves registration.
- Providing medical support to manage mass casualties as well as combat stress casualties.
[Ref. 2]

Prior to the reorganization, a Medical Battalion consisted of a Headquarters and Service Company, two Surgical

Support Companies, and four Collecting and Clearing Companies. A Medical Battalion consisted of 6 Marine officers, 233 Marine enlisted personnel, 132 Navy officers, and 628 Navy enlisted personnel as shown in Figure 2.2. The Marines performed various services, such as administrative, transportation, and maintenance, while the Navy personnel performed the medical duties of the battalion.

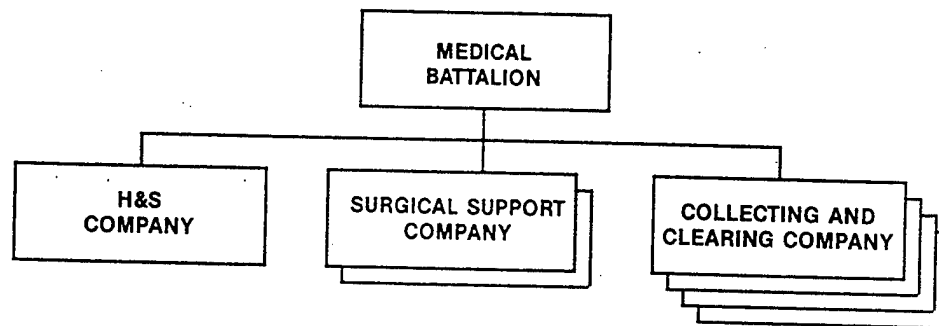


Figure 2.2 Medical Battalion Organization From Ref. [2].

The Headquarters and Service Company had the mission of providing command, control, and command support functions for the battalion. Within the Headquarters and Service Company was a special services section that had a neurosurgeon, a thoracic surgeon, a urologist, an ophthalmologist, an oral

surgeon and a podiatrist assigned; or, at least, these positions existed on the Table of Organization. The Headquarters and Service Company was to support the following functions:

- Providing administrative, organic supply, light motor transportation, and maintenance support to the Medical Battalion.
- Providing medical regulating and medical data coordination to the battalion.
- Providing any required medical specialist augmentation that may be needed at various times to the other companies in the battalion.
- Providing the medical personnel to the headquarters elements of any Combat Service Support detachments, as these detachments form.
[Ref. 2]

The Surgical Support Companies had the mission of providing general medical support to the MEF. This general support included medical treatment facilities used for the medical care, surgical care, and temporary hospitalization of casualties. The Surgical Support Company was larger than the Collecting and Clearing Company and provided general support from areas that were more stable so they would not have to relocate. The Surgical Support Company also maintained the mission of reinforcing Collecting and Clearing Companies when the need for reinforcement arose. Functions and tasks of the Surgical Support Companies consisted of the following:

- Collecting casualties from the medical personnel in the echelon of care next forward to them in the evacuation chain.
- Establishing treatment facilities to perform resuscitative surgery, medical treatment, and temporary hospitalization of any casualties received from the supported forces.
- Preparing to evacuate casualties who cannot be supported or treated because treatment of their injuries or illness is beyond the capability of the surgical company.
- Providing and coordinating medical regulating and casualty or patient evacuation to the landing force.
- Providing medical support and humanitarian care to the personnel of other services and nations as the need arises. [Ref. 2]

The Collecting and Clearing Companies had the mission of providing direct medical support to the MEF. This direct medical support consisted of collecting, clearing, and evacuating casualties from elements of the MEF being supported, as well as from medical treatment facilities, for the resuscitative surgical care required and the temporary hospitalization of any casualties. Collecting and Clearing Companies were the most mobile treatment facilities that the Medical Battalion maintained. The functions and tasks of the Collecting and Clearing Companies included the following:

- Establishing and operating all clearing stations as the need for these clearing stations arises.
- Establishing medical treatment facilities for the purposes of performing resuscitative surgery, resuscitative treatment, as well as the temporary hospitalization of all casualties.
- Providing and coordinating medical regulating and patient evacuation for the company.
- Providing medical support and humanitarian care to personnel of other services and other actions as the need arises. [Ref. 2]

The Surgical Support Companies and the Collecting and Clearing Companies had the ability to provide the same level of care to casualties or patients. The only real difference was the mobility and the number of casualties that each could handle at any given time.

This structure supported the Fleet Marine Force for years in the era of the Cold War. However, requirements change as world situations change. Accordingly, the Marine Corps began a reorganization of the Medical Battalions within the Marine Corps in 1995.

III. REASONS FOR THE REORGANIZATION

A. PRINCIPLES OF HEALTH SERVICE SUPPORT

Health Service Support is an extremely important piece of combat planning and operations. Without medical support, a military unit cannot effectively maintain combat ready troops and accomplish its mission. An evaluation of past wars and conflicts led to the development of rules of conduct or principles concerning combat medical support.

The following principles assist personnel tasked with HSS planning:

- Commanders at all levels are responsible for providing adequate and proper health care for their troops.
- Most casualties occur within the infantry units. Medical treatment and evacuation facilities must be located near these units.
- Health care must be provided continuously from the time of injury or disease through all echelons of care required for a patient.
- Casualty sorting and triage must occur at each medical facility in the evacuation chain. A patient is treated or sent rearward only to a point where the proper definitive care required can be received.
- HSS units in the FMF must maintain the ability to move rapidly.
- HSS units must be capable of being dispersed and capable of providing the best possible care to the majority of the injured wherever the injured are located.

- HSS plans can only be effectively executed if they are based upon realistic HSS capabilities.
- Plans must be flexible enough to adjust to changes in the tactical situation.
- A surgical team of an anesthesiologist and two surgeons can perform five to eight major surgical procedures within a 24-hour time period.
- A general medical officer can perform 20 minor surgery procedures in a 24-hour time period.
- Increasing the evacuation policy increases the requirements for HSS in the amphibious operation area, but reduces requirements for casualty evacuation transportation and personnel replacements.
- Prompt triage, stabilization, and evacuation of casualties will result in an increase in the number of lives saved and an increase in the number of wounded returned to duty.
- The need for evacuation decreases when a medical facility is located in an area close to the combat area.
- Once a decision is made that a patient cannot be returned to duty within the time limits of the evacuation policy, the patient should be evacuated as soon as possible. [Ref. 4]

HSS must adhere to the principles stated above in order to maintain effective support to combat units. As the world changes, military strategies change and the support required by combat units must adjust to these changes.

B. NEW NATIONAL SECURITY ENVIRONMENT

Over the last two decades significant economic, social and political changes have occurred throughout the world. The

Marine Corps changed strategies from supporting a global bipolar environment to supporting a multipolar environment. The focus of warfighting changed from one of open ocean warfighting to one of joint operations conducted from the sea on littoral areas. The Marine Corps leadership felt that these new strategies would require a high degree of mobility, sustainability, and flexibility.

The reduced strategic threat and new concept of operations brought casualty estimates for a notional MEF down from 20,000 to 8,300 casualties during the first 60 days of combat. (The notional MEF is used as a guideline in estimating the losses expected to occur in major conflict.) The priorities and strategies of the Marine Corps have shifted from global war to regional conflicts and humanitarian and peace keeping operations. The medical support appropriate for this new environment needed to change to meet the new requirements. [Ref. 3]

As the nation's force in readiness, the United States Marine Corps plays a critical role in the changing nature of the expeditionary force. The build up of forces resulting from a response to any of various different types of crises throughout the world will show the power projection of Naval Forces; medical support personnel must be able to provide support whenever and wherever the need arises.

C. BACKGROUND

The reorganization of the Medical Battalions began as a fallout of experience in Southwest Asia. Some of the Marine Corps leaders did not think that certain aspects of CSS, one of which was medical support, worked effectively or were mobile enough to support the mission throughout Desert Shield/Desert Storm or the changing missions and strategies of the United States Marine Corps. The drive for medical support to become lighter and more mobile originally came from these experiences in Desert Shield/Desert Storm. [Ref. 5]

In April 1993, an agreement to downsize Medical Battalions was reached by the Commandant of the Marine Corps (CMC), the Commanding General (CG), Marine Corps Combat Development Command (MCCDC), the Deputy Chief of Staff for Installations and Logistics and the Director, Health Services, HQMC. Subsequently, a Mission Area Analysis on Health Services was published by the CG, MCCDC. This analysis validated the concept of a smaller, lighter, more mobile HSS element supporting all MAGTFs. [Ref. 6]

In February 1994 "Health Service Support '... From the Sea', a White Paper on Health Service Support in Future Marine Air-Ground Task Force Operations," was published by the Combat Medical Branch, Doctrine Division at MCCDC. The purpose of this White Paper was to provide a framework from which Marine

Health Service Support could be developed, deployed, and operated in order to meet the challenges of providing medical and dental support and care to any MAGTF operation that might occur in the near future, as well as into the next century. The White Paper was meant to be a blueprint from which a Health Service Support system could be structured to meet the responsive challenges of supporting the Fleet Marine Forces of the future. [Ref. 3]

This White Paper discussed the origination of the Medical Battalion as it was structured in 1994. A key, or pertinent point about the structure was the Advanced Trauma Life Support technologies that were introduced to Marine Corps Medical Battalions during the Vietnam War. These technologies gave the Marine Corps significantly expanded Health Service Support capabilities at the time of that war.

The capabilities required to deliver echelon III care, provided by a hospital ship or combat zone fleet hospital, as shown in Figure 2.1 of Chapter II, were not meant to be deployable. In order to compensate, the Medical Battalions produced an echelon II capability that exceeded the requirements of published doctrine. Medical Battalions were utilizing echelon III equipment and supplies which entailed tremendous deployment weight and space requirements. Medical

Battalions were maintaining capabilities of echelon II beyond the doctrinal requirement.

This was one explanation for the organizational structure of the Medical Battalion at that time. That structure consisted of a Headquarters and Service Company, two Surgical Support Companies and four Collecting and Clearing Companies as was discussed in Chapter II. This structure could not keep up with the modern ground combat elements. [Ref 3]

Echelon III medical facilities were improved with the introduction of new fleet hospitals and a new generation of hospital ships. Medical capabilities provided to expeditionary forces were increased tremendously by these fleet hospitals and new hospital ships which were able to provide echelon III levels of care. The increase in echelon III capabilities enabled the Marine Corps to restructure the Medical Battalions. [Ref. 3]

In response to the White Paper, the CG, MCCDC, the Deputy Chief of Staff for Installations and Logistics, Headquarters Marine Corps (HQMC), and the Director, Health Services, HQMC agreed to the following in March 1994:

- The Mission Statement, Concept of Operations, Table of Organization (T/O), and Table of Equipment (T/E) required significant revision.
- The revision would be accomplished expeditiously.

- The White Paper '...From the Sea', Health Service Support in Future MAGTF Operations would serve as the starting point for the revision.
- The FSSG T/E review conference in April 1994 would accomplish the Medical Battalion reorganization.
- A council of senior Marine and Navy officers with Southwest Asia and Medical Battalion experience would meet and provide general guidance for the reorganization effort. [Ref. 7]

The Marine Corps staffed recommendations for restructuring the Medical Battalions throughout the Marine Corps and the Navy as a means to support its doctrinal mission. This was accomplished to provide greater mobility, flexibility, and sustainability under the new structure. [Ref. 3]

D. HEALTH SERVICE SUPPORT (HSS) CHANGES

In 1994, the CG, MCCDC sent a memorandum letter to the CMC with a proposed structure for Health Service Support Battalions and recommending implementation. In his recommendation he stated the following:

- HSS must be compatible with the mobility of the supported forces.
- HSS units must possess the capability to rapidly deploy.
- HSS units must possess the capability to establish medical treatment facilities.

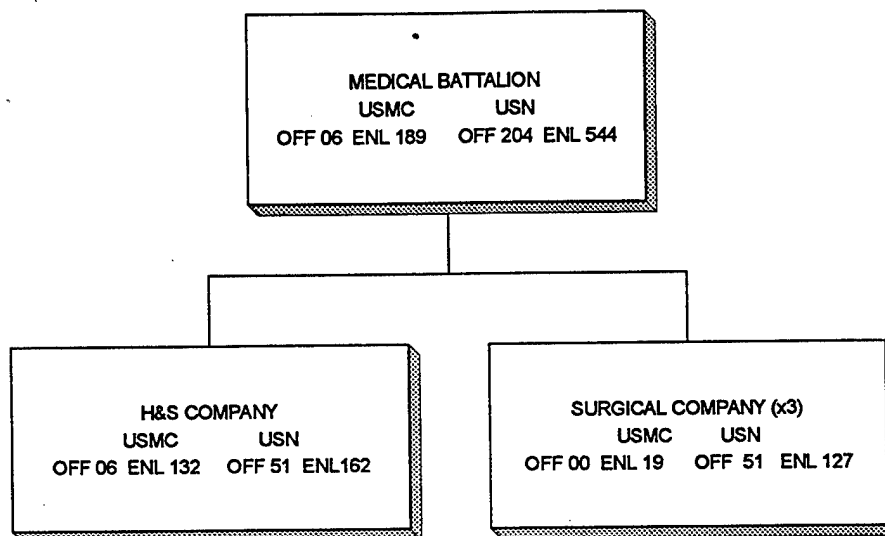
- HSS units must be able to effectively treat the sick or injured.
- HSS units must be integrated into a theater wide medical evacuation system.
- HSS units must retain mobility required by the tactical situation. [Ref. 8]

In addition to the above, the recommendation stated that the configuration of HSS within the Fleet Marine Force (FMF) was unresponsive to the pace of the modern Ground Combat Elements and was inappropriate for the doctrinal mission. In this recommendation it was stated that implementation of the proposed structure, along with the deployment of the new generation of Hospital Ships, Fleet Hospitals and Casualty Receiving and Treatment Ships would create a truly seamless health care system in support of Navy and Marine Corps operations into the next century. [Ref. 8]

E. NEW MEDICAL BATTALION ORGANIZATION

In November 1995, the CMC published a message instituting the restructuring of the Medical Battalions of the First and Second FSSGs. [Ref. 9] After the reorganization, the Medical Battalions of the First and Second FSSGs consisted of a Headquarters and Service Company and three Surgical Companies. Figure 3.1 shows how the new structure differs from the old structure.

USMC MEDICAL BATTALION (NEW)



USMC MEDICAL BATTALION (OLD)

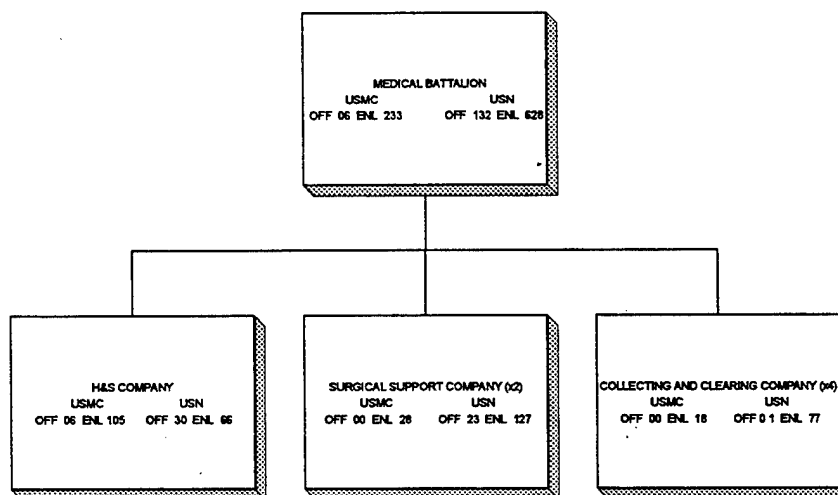


Figure 3.1 New and Old Medical Battalion Structure From Ref. [2] and Ref. [10]

Navy officer billets on the T/Os of the Medical Battalions increased from 132 to 204, but the actual peacetime manning level remained the same as it was prior to the reorganization. Navy enlisted billets on the T/O decreased from 628 to 544. The additional Navy officer billets are augment billets that will only be manned during contingencies. [Ref. 9]

The Marine Corps officer billets on the T/Os remained at 6, but the Marine Corps enlisted personnel billets on the T/O dropped from 233 to 189, a decrease, or manpower savings of 44 Marines from each battalion [Ref. 10]. The 88 billets from the two restructured battalions can now be utilized on other T/Os where manpower may fall short. Although Ref. [9] stated that there would be no Marine Corps structure savings or growth as a result of the reorganization, Ref. [10] shows that personnel savings would come out of the restructure.

Since the Medical Battalions T/O was downsized, the result was a loss of sub-specialty health care providers, such as thoracic surgeons, orthopedists, and oral surgeons who rightfully belonged and are on the T/O of echelon III platforms, such as Fleet Hospitals and Hospital Ships [Ref. 6]. Appendix B shows the Medical Battalion Manning level before and after the reorganization.

Eight Shock Trauma Platoons (STPs), each with ten patient beds, are in the Headquarters Company. Each of the Surgical Companies maintains sixty beds and three operating rooms. The lack of definitive treatment capabilities keeps the Surgical Companies from being classified as echelon III in the Medical Continuum of Care. [Ref. 4]

The STPs provide the most mobility of all the Medical Battalions supporting units. They are the lightest element of the Medical Battalion and are configured to provide collecting and clearing support as well as advanced trauma life support services to injured Marines. They provide direct medical support to the organic medical assets of the GCE and the ACE. This support includes collecting, clearing, and evacuation of casualties from supported elements, as well as from medical treatment facilities for any resuscitative surgical care and temporary holding of casualties that may be required. [Ref. 4]

The STPs may be attached to a mobile Combat Service Support Element or a helicopter support team to fill a void between the BAS and medical units that can provide a higher echelon of care. STPs also take some of the patient load from the BAS so that the BAS can follow and remain close to the combat elements that they support.

The duties of the STP include the following:

- Establishing and operating clearing stations.

- Establishing medical treatment facilities for resuscitative treatment, and temporary holding of casualties.
- Providing and coordinating medical evacuation.
- Providing medical support and humanitarian care to personnel of other services and other nations as required. [Ref. 4]

Shock Trauma Platoons are broken down into two sections, a Stabilization Section and a Collecting and Evacuation Section as shown in Figure 3.2. The Stabilization Section of the STP provides the nucleus for a ten patient bed facility. It also provides evacuation stations for emergency treatment, triage, and ambulance transfer points. The Stabilization Section maintains two five ton trucks which are used to move STP personnel and equipment. [Ref. 4]

The Collecting and Evacuation Section provides tactical ambulance support for collecting casualties from the next forward medical support echelon. It provides collection and ambulance support utilizing two tactical ambulances assigned to each of the Collecting and Evacuation Sections. [Ref. 4]

Although some mobility is sacrificed in providing a treatment facility, the STP still must maintain the capability to evacuate their casualties and move in support of battalion aid stations and the MAGTF elements that it is supporting.

The STP must always keep up with the mobility required by each particular MAGTF operation.

SHOCK TRAUMA PLATOON

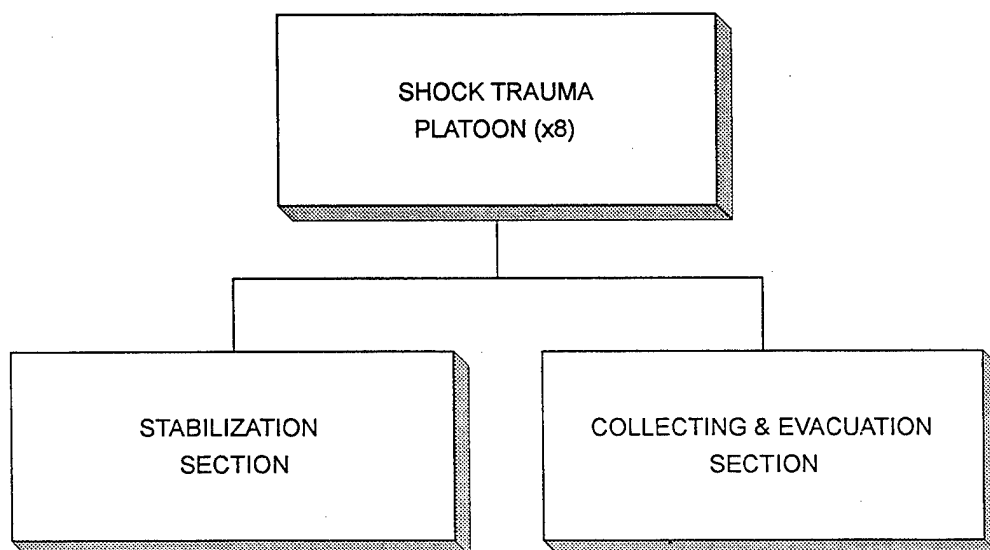


FIGURE 3.2 Shock Trauma Platoon Organization From Ref. [4]

The Surgical Companies are much larger than the STPs and are utilized in a general support role in a more stable

location than the STP or the BAS, although they do maintain both mobility and flexibility throughout a deployment through a structure and organization that allows them to divide into independent elements for deployment. An example of this is the Triage/Evacuation Platoon of a Surgical Company being deployed with an assault echelon of a combat force, and the Holding and Surgical Platoons being placed in the assault follow on echelon. [Ref. 4]

An entire Surgical Company may deploy in general support of one or more STPs or may be divided into smaller elements to task organize as stated above. This provides for ease of mobility and providing the medical support required for each of many varying scenarios.

The duties of the Surgical Company include the following:

- Collecting casualties from the next forward medical treatment echelon in the evacuation chain.
- Establishing medical treatment facilities for resuscitative surgery, medical treatment, and temporary holding of casualties from supported forces.
- Preparing casualties for evacuation whose medical requirements exceed the capability of the company or whose estimated recovery time exceeds established evacuation policy.
- Providing and coordinating medical evacuation for the landing force.

- Providing medical support and humanitarian care to personnel of other services and other nations as required. [Ref. 4]

Figure 3.3 provides an organizational chart of a Surgical Company.

SURGICAL COMPANY

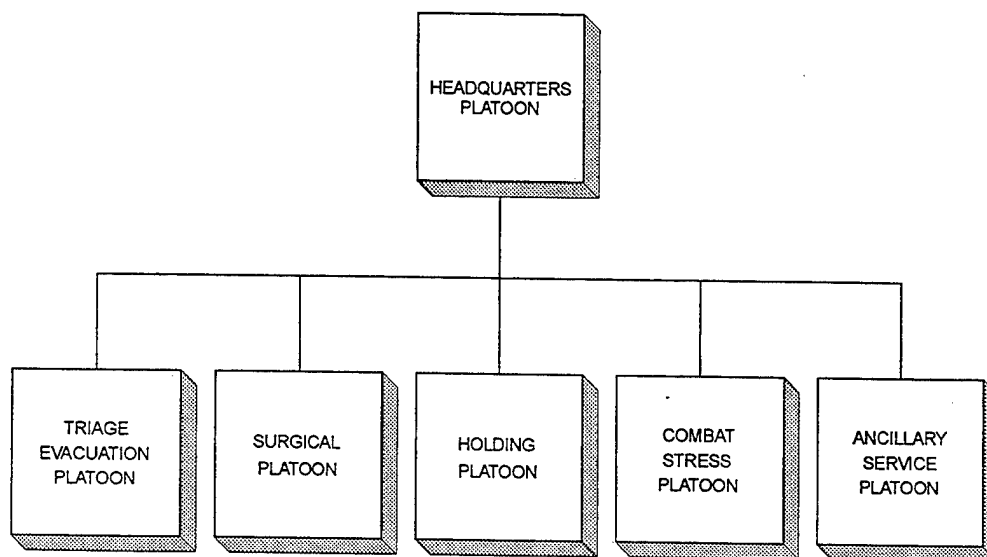


Figure 3.3 Surgical Company Organization From Ref. [4]

Both STPS and Surgical Companies provide echelon II level care in the Navy Continuum of Health Care. The STPs provide the emergency stabilization care required for evacuation of casualties, while Surgical Companies maintain capabilities built around the surgeons which are maintained on their Tables of Organization [Ref. 4].

The Navy Continuum of Health Care was modified with the restructure of the Marine Corps Medical Battalions. The Collecting and Clearing Company was replaced by the STP and Surgical Support Company was replaced by the Surgical Company on the continuum. Figure 3.4 shows the new Navy Continuum of Care with the introduction of the Shock Trauma Platoons and the Surgical Companies.

IV. POSSIBLE IMPACT OF REORGANIZATION ON HEALTH SERVICES

A. NEW THREATS

Potential threats confronting the United States in both the near term and far term are addressed in the Marine Corps Master Plan, which is the Marine Corps plan for the next ten years. Potential threat forces are becoming increasingly more dangerous as a consequence of the proliferation of technologically advanced weapons systems. In the future, MAGTFs will face a variety of threats from unsophisticated terrorist and guerrilla elements to well organized international terrorist groups and hostile conventional military forces. MAGTFs must be prepared to conduct a wide variety of operations and the HSS provided for these operations must be flexible and mobile. [Ref. 11]

B. MOBILITY REQUIREMENTS AND CHANGES

As the Marine Corps puts more emphasis on lighter and faster forces deploying in rapidly moving, short duration scenarios, the leadership in the Marine Corps and Navy medicine developed plans to support these types of operations by reorganizing the Medical Battalions, as described in Chapter III. Making the Medical Battalion lighter and more mobile has not been an easy task, but early indications of the results of this reorganization look promising. [Ref. 12]

The Shock Trauma Platoon is structured to be a highly mobile, ATLS intensive unit, capable of being fully operational within 30 minutes of deployment. It maintains the mission of augmenting, reinforcing or replacing the BAS, enabling the BAS to move forward to support the element of a MAGTF to which it is attached. The STP has the capability to augment a Surgical Company, which expands the medical capabilities for Operations Other Than War (OOTW). With the many diverse missions given to Marines in OOTW, extremely mobile medical capabilities are required and now available to support the diversity of these missions. [Ref. 13]

The restructuring of the Medical Battalions brought about a need for training all personnel assigned to FMF medical units as well as augmentation personnel in operating within the new structure [Ref. 12]. These augmentation personnel are the non-FMF medical personnel assigned to different Medical Treatment Facilities who augment the FMF Medical Battalions both during exercises and during contingency operations. Key medical personnel encouraged commanders to involve identified augmentation personnel in exercises to the maximum degree funds would permit even prior to the reorganization [Ref. 2]. The following two sections will discuss some of the initial training exercises that medical personnel and augmentees from

the First and Second Medical Battalions embarked upon utilizing their new structure.

C. FIRST MEDICAL BATTALION'S SHOCK TRAUMA PLATOON (STP) EXPERIENCES

The First Medical Battalion, First FSSG, Camp Pendleton California deployed a Shock Trauma Platoon for the first time at Marine Corps Base 29 Palms in December 1995. This deployment, held in conjunction with the 7th Marine Regiment Desert Fire Exercise "Steel Knight", gave the First Medical Battalion their earliest experience with the STP and its role in Marine Corps combat operations. The exercise was conducted at night and created difficult scenarios for the Marines and Sailors of the Shock Trauma Platoon, as they attempted to locate casualty sites and set up their equipment so that they could treat casualties.

The STP followed behind the Regimental elements as they fought their way across the desert of 29 Palms, attending to simulated casualties along the way. The strict combat environment restrictions placed on all units throughout the exercise fully tested the stamina of the STP personnel and their operations concept. [Ref. 13]

Following are some of the lessons that were learned from this first deployment:

- The STP will probably not have free reign to come and go as they please and there will be a necessity to establish liaison with the Combat Service Support Detachment early on to coordinate logistics.
- STP personnel must be aware of the need for on the spot flexibility. They must be ready to change plans and set up STP operations procedures on short notice due to rapidly changing situations.
- Consideration should be given to reconfiguring the Authorized Medical Allowances (AMALs) with only the items necessary and realistically expected to be used in the STP operating environment.
- The use of the 5-ton trucks to move STP equipment and supplies significantly slows down the ability of the STP convoy to move to casualty locations quickly. An AMAL developed specifically for the STP would reduce the lift requirements and Humvees with trailers, which are capable of much more rapid movement across rough terrain and significantly shorter response time, could replace the 5-ton trucks. [Ref. 13]

This initial exercise for the First Medical Battalion provided a great learning experience for the FMF Medical Battalions in ensuring that the STP provides the benefits that were meant to occur with the restructuring of the battalion.

D. SECOND MEDICAL BATTALION'S STP EXPERIENCES

The Second Medical Battalion, Second FSSG, located at Camp Lejeune, North Carolina, conducted a significant test of the reorganization in October 1995, which actually occurred a month before the official restructuring. The exercise

involved the entire H&S Company, a Surgical Company, two STPs and 83 medical augmentees who were assigned to Second Medical Battalion from various Medical Treatment Facilities for the exercise. Several scenarios were run throughout the ten day field exercise, such as detaching a surgical unit from the Surgical Company and placing it with one of the STPs. [Ref. 12]

This exercise provided Marines and Sailors rigorous training, which included setting up, tearing down and moving the STPs and the Surgical Company on several occasions. For most personnel involved in the exercise, this was their first real experience working with the newly organized STP. [Ref. 12]

Several casualty scenarios were run throughout the exercise. Some of these casualties were purposely held by the STP while it moved. This not only added to the complexity of the operation, but also provided some outstanding mobility training. The exercise proved to be an invaluable training evolution and marked the beginning of the reorganization of the Medical Battalions.

One of the participants in this exercise, Ensign Tim Burnham from Naval Hospital Groton, Connecticut, stated that "The STP concept is very feasible and workable, and very well organized." [Ref. 12] Another participant, Lieutenant

Commander William McCrea from Naval Hospital Camp Lejeune North Carolina, also commented on the training evolution and the STPs. McCrea observed that "The casualty play went well and was a valuable experience for the corpsmen treating casualties under conditions and scenarios expected on the battlefield." [Ref. 12] These statements suggest that the new structure is supported by the Navy medical community.

Each exercise and operational commitment will offer Medical Battalions the opportunity to improve the newly organized system. This continuous improvement should eventually lead to a leaner, meaner, lighter and faster Medical Battalion. It should also ensure that Navy medicine provides the best health services possible to the FMF and the Navy-Marine Corps team. [Ref. 12]

E. ADDITIONAL STP EXPERIENCES

In addition, the Second Medical Battalion utilized two Shock Trauma Platoons in the United States Atlantic Command's "Purple Star 96" exercise which was held at Camp Lejeune in April and May of 1996. The mission of the Second Medical Battalion for this exercise was to provide real world echelon I and II care, train medical personnel and medical augmentees, and perform minor surgery in the field. [Ref. 14]

The battalion actually received some real life training when two helicopters conducting night operations collided in

the air killing 15 service members. The battalion immediately set up a Collection and Evacuation Platoon which assisted with the removal of the remains of the casualties. STPs and Surgical Companies were already deployed to various locations throughout the Camp Lejeune area. Unfortunately, most of the "real life" training received was that of removing the remains of dead bodies.

The capability to augment a Surgical Company significantly expands the Surgical Company's capabilities for Operations Other Than War (OOTW). It also increases the diversity of missions and medical capabilities available to support the missions in OOTW. The STP was utilized as a base unit, and other capabilities were married to it which produced a myriad of possibilities for medical planners to consider for future missions. As the STP is utilized more and more, new concepts revolving around it are ongoing. Throughout the exercise medical personnel were performing the missions at hand while operating in the new environment of the restructured Medical Battalion. [Ref. 13]

F. STP LIMITATIONS

The STP does have some initial limitations. One of these is the endurance limit on the length of deployment in regards to fuel and water needs. It is more difficult to maintain these requirements as the unit becomes more mobile. Another

limitation is the possibility of working without electrical power due to security requirements of the mission.

As the frequency of STP deployments increases, these limitations should become less of a hindrance to the operations of the STP. The resupply of fuel and water will become easier as the Authorized Medical Allowance (AMAL) is reconfigured for STP operations and only items necessary and realistically expected to be used in the STP operating environment are carried, thus enabling the Humvees and trailers to replace the 5-ton trucks. This would ease logistical requirements in fuel and water resupply. Operating without electrical power or light will become easier as STP personnel receive more extensive practice and training in moving and conducting all operations in the dark using Night Vision Goggles. [Ref. 13]

G. HEALTH SERVICES IN ECHELON II CARE

As described in the above exercises, the Shock Trauma Platoon appears to be a move in the right direction for medical support in the FMF. The Medical Battalions have provided mobile HSS in the form of echelon II care to the FMF, with documented results. Obviously, only a real contingency or war will demonstrate the mobility of the leaner and faster Medical Battalion and determine whether it provides the HSS that the Navy and Marine Corps desire.

Initial indications point to increased mobility of medical support with the reorganization of the Medical Battalion and the introduction of the Shock Trauma Platoon. Health services have become leaner and lighter and appear to have become more mobile. As the supporting missions in today's Marine Corps have been modified to missions of rapid deployments, the reorganized Medical Battalion has adapted to meet the new challenges. The tactics utilized by the Marine Corps in deploying HSS have been altered to meet the mobility of the supported forces.

This chapter discussed some of the initial uses of the Shock Trauma Platoon and the impact that it has had on the Marine Corps in an exercise or training environment. The next chapter will provide some financial implications of this reorganization.

V. FINANCIAL IMPLICATIONS OF THE REORGANIZATION

A. INTRODUCTION

This chapter will examine some of the financial implications of the Medical Battalion reorganization. The operating budget of one of the FMF Medical Battalions will be examined to see if any savings were obtained by the battalion in the operation budget. The origin of any savings obtained by the Marine Corps as a result of this reorganization will also be examined in this chapter.

B. SECOND MEDICAL BATTALION'S BUDGET

The Second Medical Battalion's operating budget, which consisted of operational supplies and Temporary Additional Duty funds, for Fiscal Year (FY) 1995, FY 1996, and FY 1997 was examined to see if any operational savings were achieved by the restructured battalion. The comptroller at the Second FSSG did not consider the reorganization of the battalion when setting the budget [Ref. 15].

The budget for FY 1995 was examined to provide a baseline since it was the year prior to the reorganization. The budget for FY 1996 was examined because the reorganization occurred two months into that fiscal year. The budget for FY 1997 was examined because this was the first full year that the Second Medical Battalion was operating in the new structure. FY 1995

and FY 1996 budget numbers include the dollar amounts in the budget prior to the beginning of the fiscal year and the actual amount spent at the end of the fiscal year. The figures for FY 1997 represent only the amount budgeted prior to the beginning of that fiscal year, since FY 1997 is the current fiscal year.

The budgeted amount is the dollar amount that the Comptroller allocates to each battalion in the FSSG. The battalions cannot obligate above the dollar amount in the budget unless the Comptroller approves and allocates additional money.

In FY 1995 an increase in the dollar amount spent over the original dollar amount budgeted for the year of approximately \$35,000 was observed. Fluctuations such as this are not unusual for the operating forces, as money is reallocated throughout FSSG as the fiscal year progresses [Ref. 15]. In FY 1996 the amount obligated for the year was about \$2,500 less than the budget. Figure 5.1 provides a chart showing the changes in Second Medical Battalion's budget for FY 95 to FY 97. [Ref. 16]

The reorganization appears to have had a financial impact on the operational budget of the Medical Battalion. While the fluctuation in the budgeted and obligated amounts in FY96 was

considered a normal fluctuation by the Second FSSG budget officer [Ref. 15]. It should be noted that there were decreases in both the budgeted amount and the amount actually expended. When the impact of inflation is considered, there was a savings of 13.5 percent from FY 95 to FY 96. Budgeted amounts have decreased 9 to 10 percent, a significant savings.

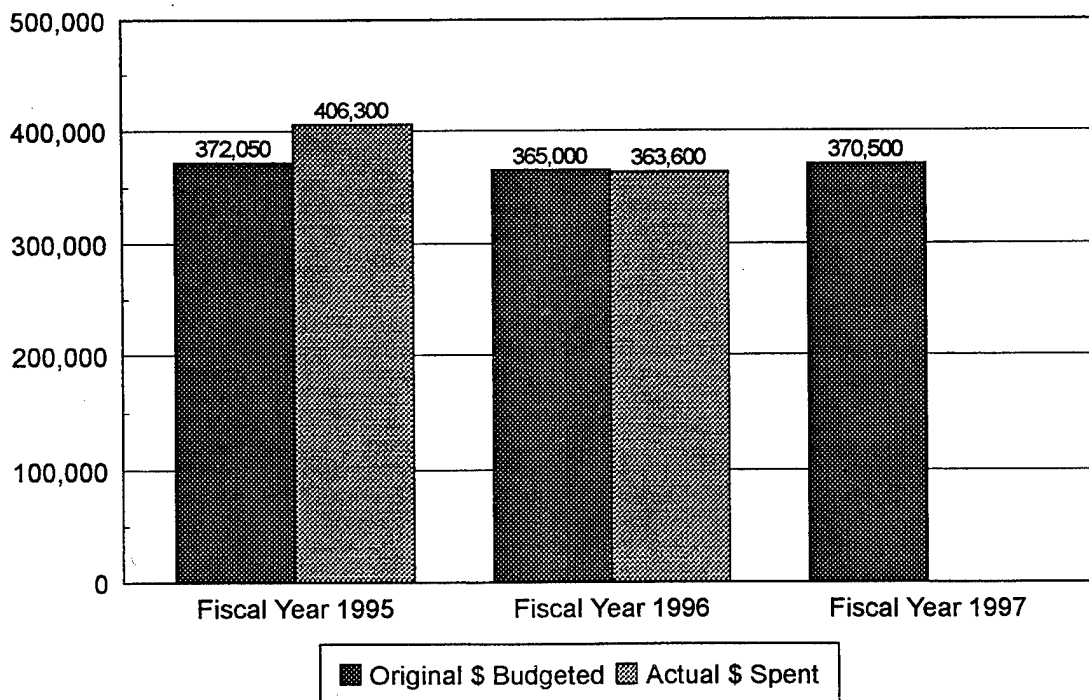


Figure 5.1 Budget and Expenditures of Second Medical Battalion FY 95 to FY 97

C. MANPOWER SAVINGS

Manpower savings did occur, as was stated in Chapter III. These savings could be considered financial savings to the Marine Corps, since 88 Marines are no longer on the T/Os of the First and Second Medical Battalions and can be utilized in other billets throughout the Marine Corps. The total force structure will remain at 174,000, so these 88 billets can be utilized as combat arms billets. The savings derived from these 88 billets represents a conservative estimate given that the two remaining Medical Battalions are slated for similar restructuring. The following section will provide an area of savings that was indirectly a component of the reorganization of the Medical Battalions.

D. CLASS VIII MEDICAL MATERIAL

Since casualty estimates in a MEF sized force were reduced from 20,000 to 8,300 over a 60 day period, as was stated in Chapter III, the amount of Class VIII material held by the Marine Corps began to be examined. Class VIII material is the medical and dental equipment and supplies that support the HSS mission. [Ref. 11]

After careful scrutiny and approval by Marine Forces Atlantic and Pacific, in April 1993 the Deputy Chief of Staff for Installations and Logistics at HQMC directed a 50 percent reduction in all consumable Class VIII requirements. This

Class VIII reduction preceded, but was also one of the major events that led to the White Paper entitled "Forward ... From the Sea: Health Service Support", which led to the revitalization of the Medical Battalion. The logistical footprint of the Medical Battalion was lightened by the reorganization and echelon II medical supportability was preserved, as was previously stated in Chapter III. This involved a 30 to 60 percent reduction in materiel requirements, which was ultimately a financial savings. These materiel requirements or Class VIII inventory were valued at approximately \$146 million after Desert Shield/Desert Storm. This equates to a savings of approximately \$40 to \$80 Million in materiel requirements. [Ref. 11]

As previously stated in Chapter III, the Medical Battalion reorganization was not achieved solely for budgetary reasons, although cost considerations always weigh heavily in Marine Corps management decisions. Nevertheless, HQMC expects to see as much as a 50 percent savings for the replacement of expired pharmaceuticals in FY 1997 and beyond because of the reduction in the MEF's Class VIII inventory. This Class VIII material will be accounted for utilizing a vendor managed inventory system. This aspect of Class VIII material management is expected to provide the Marine Corps some indirect cost savings in the future. [Ref. 6]

E. MARITIME PREPOSITIONING FORCE

Additional savings stemming from the class VIII material were savings associated with the Maritime Prepositioning Force (MPF). The MPF is the marriage of a Maritime Prepositioning Ship Squadron (MPSRON) and a Marine Expeditionary Brigade [Ref 17]. Three MPSRONS are afloat throughout the world awaiting the call to join with a MAGTF for rapid deployment in case of crisis prevention and intervention [Ref. 17]. The Marine Corps also has prepositioned equipment located in Norway.

In the Spring of 1994, HQMC issued a policy that redefined Class VIII material aboard MPSRON. The policy contained three basic tenets. First, equipment would be appropriately sized to fit the Medical Battalion reorganization that was about to take place. Second, consumable materiel would be downsized to approximately 25 percent of the reduced requirement for a MEF. Finally, material prepositioned in Norway would be sized with equipment to planned force structure. Consumables would be sized to the sustainment requirements at the revised casualty estimates and considered above all other Marine Corps requirements. [Ref. 11]

In February 1995, a committee chaired by personnel at Installations and Logistics at HQMC, the MPF Tailoring Committee, implemented numerous changes to shape the Class

VIII material associated with the MPF Program. The results ensured that part of the medical capability would remain with each ship while being sized to meet the above changes. The number of operating rooms decreased from nine to four and the number of beds on each Maritime Prepositioning Squadron (MPSRON) decreased from 180 to 90. These reductions are approximately 50 percent, resulting in a minimum maintenance cost avoidance in the first 30 days of a contingency of approximately \$1.25 to \$2 million per MPSRON; multiplying by the three MPSRONs yields a total savings in this category of \$3.75 to \$6 million. [Ref. 11]

When the CMC submitted Program Objective Memorandum (POM) 98 to the Secretary of the Navy for consideration, many Marine Corps initiatives were deleted because of diminishing resources anticipated for FY 1998. Health services survived the POM and Commander Bill Frank of the Combat Medical Branch, Doctrine Division, at MCCDC indicated his satisfaction that stated "we streamlined the Medical Battalions." [Ref. 14]

F. CONCLUSION

The reorganization of the Medical Battalions in the Marine Corps has had a financial impact on various aspects of medical support throughout the Marine Corps. Although the reason for the reorganization was to increase mobility, a cost savings was also achieved. This savings may have spared the

medical community in the Marine Corps from drastic cuts in the fiscal year 1998 POM.

This chapter discussed the financial implications of the Medical Battalion reorganization. Estimated and potential savings were addressed throughout the chapter. The following chapter contains the summary and conclusions of this thesis.

VI. SUMMARY AND CONCLUSIONS

A. SUMMARY

The main objective of this thesis was to examine the impact that both the reorganization of the Medical Battalions and the introduction of the Shock Trauma Platoons into these battalions have had on the medical support provided to the Fleet Marine Force. The new structure of the Medical Battalion was based on the desire of the Marine Corps to make the Medical Battalion more mobile in order to provide the required support to the rapid deployment of the current mobile combat forces.

The reorganization originated from experiences in Desert Shield/Desert Storm, where Marine Corps leaders on the battlefield did not see HSS as being sufficiently mobile to meet the battlefield or operational environment. The previous structure was established in the Vietnam era and was not providing the HSS required in an environment characterized by regional turmoil and rapid deployments that demanded mobility of combat forces and HSS forces.

The Navy's role in supporting the Marine Corps in health services was identified, as well as the changes that were taking place in the Health Care Continuum. The Collecting and Clearing Company was replaced on the continuum with the Shock

Trauma Platoon and the Surgical Support Company was replaced with the Surgical Company as was shown in Figure 3.4.

STPs bridge the gap between the BAS and more capable medical units. They are able to relieve patient loads of the BAS, which in turn will allow the BAS to maneuver with the forces they support. The STP is the lightest Medical Battalion element that maintains the capability to stabilize and evacuate patients traveling closely behind the GCE. This should allow the Marines assigned to the GCE to receive quick medical care as well as improve the vital link to the next echelon of care. [Ref. 13]

The T/Os of the Medical Battalions were reduced in the reorganization. Both Marine Corps and Navy billets were reduced. In addition, staffing of some of the Navy officer billets would only occur during a contingency.

This thesis also explained the procedure that the Marine Corps utilized in the reorganization process. The reorganization occurred over a period of three years from 1993 to 1995 and involved numerous Navy and Marine Corps personnel. The leadership in this initiative was taken by the CG of MCCDC, with the agreement to downsize Medical Battalions having been reached by CMC, the Deputy Chief of Staff for Installations and Logistics, and the Director, Health Services at HQMC.

B. CONCLUSIONS

Marine Corps officials believe that the restructured Medical Battalion, with its decreased lift requirement and smaller footprint, will allow the battalion to move with the combat maneuver elements and provide direct resuscitative HSS to the combat forces [Ref. 18].

The ultimate goal of the reorganization was for the Medical Battalion to provide a lighter, faster and more mobile HSS element to Marine forces. Initial implementation of the Shock Trauma Platoons in both the First and Second Medical Battalions, provide initial conclusions that the Medical Battalions have become more mobile and will be able to provide the required mobile HSS as the need arises. Time, training, and continual experience will provide additional insight into the mobility of the new structure.

The Marine Corps did have a monetary savings from the reorganization. This savings consisted of operations and maintenance savings, the 88 billets that can be utilized in other locations throughout the Marine Corps, and savings in Class VIII material both in the MPF program and in the MEF that was indirectly achieved.

Some initial limitations to the STPs were encountered in early exercises utilizing the new structure. One of these limitations is the endurance limit on the length of deployment

in regards to fuel and water needs. Another limitation is the possibility of working without electrical power due to security requirements. These limitations will become less of a hindrance as the the STP is used during deployments and experience is gained.

C. RECOMMENDATIONS FOR FURTHER RESEARCH

The purpose of this thesis was to examine the reorganization of the Marine Corps Medical Battalions and the Shock Trauma Platoons in the new structure and to indicate how this would affect the HSS provided to the FMF. Several issues that require further study were discovered while conducting the research.

Recommendations for further study in this area include:

- How did the Ground Combat Element of a Marine Air-Ground Task Force react to the increased mobility of the Medical Battalion?
- Are there other elements of Combat Service Support that could be downsized to save dollars or to increase mobility without hindering the required support?
- What are the actual dollar savings obtained from the restructure after it has been operating for two years?

APPENDIX A. LIST OF SYMBOLS, ACRONYMS AND/OR ABBREVIATIONS

ACE	Air Combat Element
AMAL	Authorized Medical Allowances
ATLS	Advanced Trauma Life Support
BAS	Battalion Aid Station
CE	Command Element
CG	Commanding General
CMC	Commandant of the Marine Corps
CSS	Combat Service Support
CSSE	Combat Service Support Element
FMF	Fleet Marine Force
FSSG	Force Service Support Group
GCE	Ground Combat Element
HQMC	Headquarters Marine Corps
HSS	Health Service Support
MAGTF	Marine Air-Ground Task Force
MCCDC	Marine Corps Combat Development Command
MEF	Marine Expeditionary Force
MEU	Marine Expeditionary Unit
OOTW	Operations Other Than War
STP	Shock Trauma Platoon
T/E	Table of Equipment
T/O	Table of Organization

APPENDIX B. MEDICAL BATTALION MANNING

Naval Personnel

	USN (Old)	USN (New)	Difference
Officers	132	204	+72*
Enlisted	688	544	-144

* Billets are augmented during a contingency only.

Marines

	USMC (Old)	USMC (New)	Difference
Officers	6	6	0
Enlisted	233	189	-44

There are four Force Service Support Groups in the Marine Corps, three active and one reserve. The Medical Battalions of the First and Second Force Service Support Groups were reorganized in 1995. Plans are underway for the restructure of the Third and Fourth Service Support Groups in a similar manner. All figures represented above are for a single Medical Battalion.

LIST OF REFERENCES

1. United States Navy, Bureau of Medicine and Surgery, U. S. Navy Medicine '...From the Sea', Washington, D. C. (Undated)
2. United States Marine Corps, Fleet Marine Force Manual (FMFM) 4-50, Health Service Support, Washington, D. C. 19 September 1990.
3. United States Marine Corps, Health Service Support'...From the Sea', A White Paper: Health Service Support in Future Marine Air-Ground Task Force Operations, Quantico, VA, 15 February 1994.
4. United States Marine Corps, Marine Corps Warfighting Publication (MCWP) 4-2, Operational Health Service Support (Coordinating Draft), Washington, D. C., 22 February 1996.
5. Stoddard, T., CAPT, MSC, USN, Executive Assistant to Medical Officer of the Marine Corps, Headquarters Marine Corps (HS), Interview, 24 July 1996.
6. Frank, W., CDR, MSC, USN, Combat Medical Branch, Doctrine Division, Marine Corps Combat Development Command, Quantico, VA, Memorandum, 5 August 1996.
7. Woodhead, J. A., USMC, Executive Assistant to Deputy Chief of Staff for Installations and Logistics, Headquarters Marine Corps, Memorandum for FSSG T/E Review Conference, 11 March 1994.
8. Commanding General, Marine Corps Combat Development Command, Medical Mobility, Structure and Organizational Memorandum, 16 February 1994.
9. United States Marine Corps, Marine Corps Bulletin (MCBUL) 5400, Medical Battalion Reorganization, Washington, D. C., 2 November 1995.
10. Marine Corps Combat Development Command, Briefing Chart on Medical Battalion Reorganization (Undated).
11. Tomlinson, D. W., LCDR, MSC, USN, Executive Officer, Second Medical Battalion, Memorandum File, 12 November 1996.

12. McCoy, T., MSC, USN, "The Leaner, Meaner, Lighter, Faster Medical Battalion," Navy Medicine, pp 10-12, January-February 1996.

13. United States Marine Corps, Health Services Code (HS), Shelterhalf, Washington, D. C., February 1996.

14. United States Marine Corps, Health Services Code (HS), Shelterhalf, Washington, D. C., June 1996.

15. Hensen, M., CAPT, USMC, Deputy Comptroller, Second Force Service Support Group, Camp Lejeune, N. C., Interview, 5 November 1996.

16. Hensen, M., CAPT, USMC, Deputy Comptroller, Second Force Service Support Group, Camp Lejeune, N. C., E-Mail, 24 November 1996.

17. Kemple, W. G., Maritime Prepositioning Force (MPF) Throughput Analysis of a Marine Expeditionary Unit (MEU) Sliced Offload, Thesis, Naval Postgraduate School, Monterey, CA, September 1994.

18. General Accounting Office, Report Number NSIAD-96-224, Wartime Medical Care: DOD Is Addressing Capability Shortfalls, But Challenges Remain, 25 September 1996.

INITIAL DISTRIBUTION LIST

	No. Copies
1. Defense Technical Information Center 8725 John J. Kingman Rd., STE 0944 Ft. Belvoir, VA 22060-6218	2
2. Dudley Knox Library Naval Postgraduate School 411 Dyer Rd. Monterey, CA 93943-5101	2
3. Director, Training and Education MCCDC, Code C46 1019 Elliot Rd. Quantico, VA 22134-5027	1
4. Director, Marine Corps Research Center MCCDC, Code C40RC 2040 Broadway St. Quantico, VA 22134-5107	2
5. Director, Studies and Analysis Division MCCDC, Code C45 3300 Russell Rd. Quantico, VA 22134-5130	1
6. Prof. Richard B. Doyle Code SM/Dy Naval Postgraduate School Monterey, CA 93943-5103	1
7. Prof. John E. Mutty Code SM/Mu Naval Postgraduate School Monterey, CA 93943-5103	1
8. Major Thomas J. Fuhrer 415 Castle Shannon Blvd. Pittsburgh, PA 15234	2